

APPENDIX II
SITE HISTORY

SITE HISTORY

The Site has been used for a wide variety of industrial operations for many years. Remington Arms Union Metallic Cartridge Company (Remington Arms) constructed many of the former buildings on the Site between 1914 and 1915. In 1920, GE leased a 40.17-acre parcel, which included what is now the Site, from the Bridgeport Liquidation Company, and purchased the parcel on August 27, 1923. GE acquired additional parcels from May 1920 to November 1953, consolidating them to form the 76.5-acre Boston Avenue Property.

Operations

Neither the Site nor the Property was ever used for the manufacture munitions. Instead, Remington Arms Union Metallic Cartridge Company (Remington Arms) manufactured military rifles on the Site beginning circa 1914/1915 and continued weapons manufacture until circa 1918. Beginning in 1920, GE began to manufacture phonograph motors, small induction motors, and some wiring devices at the Property. By 1921, operations expanded to include the manufacture of switches, sockets, receptacles, attaching plugs, and fuses. In 1924, manufacturing was expanded to include code wire, conduit, outlet boxes and fittings, armored cable, fixture and lamp cords, and welding electrodes. Beginning in the 1930's and concluding in approximately 1970, GE operated a Housewares and Small Appliances Division at the Property. These operations were primarily limited to offices and a testing laboratory. The Accessory Equipment Operation (division of Consumer & Industrial – Americas Operation (C&I)) began in 1936 and operated until the early 1970's, to manufacture push buttons, plugs and various other items. Wire and cable manufacturing processes were conducted from 1930 to 1986. From 1986 to 2007, Site operations consisted of the manufacturing large rotary switches, small rotary switches and lamp holders. All manufacturing ceased in 2007.

Buildings

Buildings 27 through 33 and 35 (figure 1) were initially constructed in 1915. These buildings were part of a larger “main building” that was located on the Site and extended an additional 750 feet south of the Site. The original construction of the roughly 1.4-million square foot building included an interconnected series of 13, five-story brick buildings and a 14th single-story brick building. Low Buildings 44 and 54, located on the western side of the Site, were constructed in 1915 and 1939, respectively. The former 30,400-square foot Power House (also

known as Building 63) straddled the southwest boundary of the Site and the remainder of the Boston Avenue Property.

The former Site buildings were removed during two events: Buildings 26L, 26R, 27L, 31T, 34R, 35, 36, 37, 44, and 54 in 1999; and Buildings 27 through 34, and 63 from August 2011 through July 2012. With CTDEEP's approval, GE reused some of the crushed brick and concrete from the buildings as clean fill on the Boston Avenue Property, including a portion of the Site. This material was placed on the Site to the west of the topographically-higher eastern asphalt area to create a moderate slope across the Site to the west.

Infrastructure

The former drainage system at the Site included floor, roof and process drains associated with the buildings and process and storm drains in the exterior areas. This drainage system evolved during years of site usage and deconstruction (e.g., process changes, drainage system reconfiguration, floor drains converted to storm drains after deconstruction). The Property, including the Site, was connected to municipal sanitary sewers, which drained to the south on the east side of the Site to the City of Bridgeport's sanitary sewer system located on Boston Avenue.

An underground utility tunnel, constructed of brick walls and a concrete floor, formerly connected the north end of the Power House to the western portion of the main building at Building 27AS, and then extended north and south along the central portion of the main building. Pipes formerly in the tunnel transported steam, hot water, water, electricity and air. As part of deconstruction activities, piping was removed from the tunnel, and the tunnel was backfilled with clean fill.

Eighteen (18) transformers that contained polychlorinated biphenyl (PCB) dielectric fluids were formerly present at the Site. Capacitors containing PCB oils were also located near most of the transformers. The transformers and capacitors were removed by 1987, with some being replaced with PCB-free equipment. All such equipment has since been removed from the Site.

The Site formerly contained 22 underground storage tanks (USTs) and 2 aboveground storage tanks (ASTs). All USTs and ASTs have been removed. Past investigation and closure activities associated with former USTs and ASTs are detailed in the Phase III report.

Previous Process Closure Activities

Numerous investigations and process closure activities have been completed at the Site. Between 1986 and 2011, metal-plating lines located in the buildings were closed; a wastewater treatment plant (WWTP) located in the northeastern portion of the Power House was decommissioned and closed; a wastewater collection system in Building 31AE was investigated and remediated; and two hazardous waste container storage areas (Buildings 33 and 35) were closed in accordance with RCRA standards. Past investigation and closure activities are detailed in the Phase III report.

Areas of Concern

As detailed in the Phase III report, a number of areas of concern (AOCs) were identified on the Site: discrete AOCs (e.g., former USTs, vapor degreasers, loading areas, chemical storage); more generalized AOCs (e.g., former manufacturing operations in buildings that handled chemicals, storage of drums in western courtyards); and AOCs that extend across large Site areas, and potentially the rest of the Boston Avenue Property (e.g., former utility tunnel, floor drains, sanitary and storm sewers, filling, and rail lines). Table 1 provides a summary of the AOCs, while figure 4 shows their locations. The configuration of the Site has changed since the Phase III report was drafted, resulting in relocation of the southern Site boundary 30 feet farther north. Consequently, AOC 9 is no longer present on the Site. To avoid any confusion, AOC numbers have not changed from the Phase III report, but AOC 9 is not included on table 1 or figure 2.

TABLE

TABLE 1

GENERAL ELECTRIC COMPANY
SCHOOL PARCEL
BRIDGEPORT, CONNECTICUT

Summary of Areas of Concern

AOC #	Area of Concern (AOC)	Primary Concern	1988 RFA	Summary of 1988 RFA Conclusion
1	UST 5 though 8 - Beneath Former Low Buildings 44	Sheen observed in tank grave, release reported. While remedial actions were completed, the data does not conclusively indicate USTs were source of impacts. Unknown if product lines were removed. Contents formerly consisted of fuel oil and cooling water		
2	USTs 21, 22, 63 and 64	No confirmation samples collected for VOCs No sampling beneath dispenser lines Unknown if dispenser lines to Building 67 were removed Contents formerly consisted of gasoline and diesel fuel		
3	UST 38 - Courtyard 27W	No closure sampling Contents formerly consisted of mineral and transformer oil		
4	USTs 39 - Former Building 29L	No closure sampling Contents formerly consisted of mineral and transformer oil		
5	USTs 40 - Former Courtyard 31	No closure sampling Contents formerly consisted of mineral and transformer oil		
6	USTs 41 - Former Building 34L	No closure sampling Contents formerly consisted of mineral and transformer oil		
7	UST 46 - Courtyard 28E	No closure sampling Unknown if product lines were removed Contents formerly consisted of plating solutions		
8	UST 70 - Courtyard 30W	No closure sampling Unknown if product lines were removed Former contents unknown		
See AOC 15	UST 11 and USTs 48 through 54 - Courtyard 32W	Phthalate Release reported; NAPL present; Contents formerly consisted of plasticizer		
10	Courtyards 26E and 26W	Courtyards were former low buildings used in support of wire and cable operations such as brading, strip, print and testing. Constructed into courtyards in 1999.		
11	Building 27AE and 27AW	Original flooring primarily consisted of wood over an asphalt type material. Flooring is permeable and subject to impact by liquids, any historic operation on the A floor that involved chemical usage (lubrication, fueling, storage, etc.). Potential for release to soils and groundwater.		
12	Courtyard 27W and Building 27R	Drums next to building walls in the western open courtyards Storm drains historically located in all courtyards Areas originally unpaved Building constructed from eastern courtyard circa 1940. Area was used for chemical storage and wire and cable operations.		

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AOC #	Area of Concern (AOC)	Primary Concern	1988 RFA	Summary of 1988 RFA Conclusion
13	Building 28AE and 28AW	Original flooring primarily consisted of wood over an asphalt type material. Flooring is permeable and subject to impact by liquids, any historic operation on the A floor that involved chemical usage (lubrication, fueling, storage, etc.). Potential for release to soils and groundwater.		
14	Courtyards 28E and 28W	Drums next to building walls in the western open courtyards Storm drains historically located in all courtyards Areas originally unpaved		
		Courtyard 28W - Bag house Focused investigation not warranted	Bag house	Unknown release to air. No release from the bag houses to soil, groundwater or surface water, and no further action was warranted,
15	Building 29AE and 29AW	Screw machining in former Building 29AE Long-term use of oils in area with wood and asphalt flooring		
		Former Building 29AW – Shipping and Receiving Handling chemicals and waste		
		Original flooring primarily consisted of wood over an asphalt type material. Flooring is permeable and subject to impact by liquids, any historic operation on the A floor that involved chemical usage (lubrication, fueling, storage, etc.). Potential for release to soils and groundwater.		
16	Building 29R and 29L	Vapor Degreaser in former Building 29R Handling and storage of solvents		
		Former steam cleaning of parts and equipment in western portion of former Building 29L Potential for spillage		
17	Building 30AE and 30AW	Original flooring primarily consisted of wood over an asphalt type material. Flooring is permeable and subject to impact by liquids, any historic operation on the A floor that involved chemical usage (lubrication, fueling, storage, etc.). Potential for release to soils and groundwater.		
18	Courtyard 30W and Building 30R	Drums next to building walls in the western open courtyards Storm drains historically located in all courtyards Areas originally unpaved		
		No specific concerns identified with past usage of former Building 30R		

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19	Building 31AW and AE	Samples collected as part of closure of former plating area in Building 31AE were above RSR criteria	Waste Water Collection System for Accessory Metals (including Silver Reclamation Unit)	Release to soil, potential release to groundwater
		Silver stripping and drums storage formerly in Building 31AW		
		Original flooring primarily consisted of wood over an asphalt type material. Flooring is permeable and subject to impact by liquids, any historic operation on the A floor that involved chemical usage (lubrication, fueling, storage, etc.). Potential for release to soils and groundwater.		
20	Courtyards 31W and 31E	Drums next to building walls in the western open courtyards Storm drains historically located in all courtyards Areas originally unpaved		
		Drums next to building walls in the western open courtyards Storm drains historically located in all courtyards Potential for release from sumps or piping		
21	Buildings 32AW and AE	Original flooring primarily consisted of wood over an asphalt type material. Flooring is permeable and subject to impact by liquids, any historic operation on the A floor that involved chemical usage (lubrication, fueling, storage, etc.). Potential for release to soils and groundwater.		
22	Courtyard 32W and Building 32R	Drums next to building walls in the western open courtyards Storm drains historically located in all courtyards Areas originally unpaved		
		Release of LNAPL identified throughout Courtyard 32W during closure of UST 11 and USTs 48 through 54		
		Courtyard 32W - Bag house Focused investigation not warranted	Bag house	Unknown release to air. No release from the bag houses to soil, groundwater or surface water, and no further action was warranted
		No specific concerns identified with past usage of former Building 30R		
23	Building 33AW and AE	Building 33AW historically used for storage of finished products, mixers, extruders, oil storage and chemical waste storage. Hazardous waste also stored in pre-fabricated containment building located inside former Building 33AW		
		Building 33AE was historically used for waste storage.		
		Original flooring primarily consisted of wood over an asphalt type material. Flooring is permeable and subject to impact by liquids, any historic operation on the A floor that involved chemical usage (lubrication, fueling, storage, etc.). Potential for release to soils and groundwater.		

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Summary of Areas of Concern

AOC #	Area of Concern (AOC)	Primary Concern	1988 RFA	Summary of 1988 RFA Conclusion
24	Buildings 34R and 34L	Building 34L - Shipping and receiving area Handling of chemicals and wastes Storm drain located in central loading area		
		No specific concerns identified with past usage of former Building 34R		
25	Building 35	Structural fill identified with constituents above RSR criteria was used to raise original foundation to current grade. Potential impacts to soils below slab.		
		Former Building 35 Hazardous Waste Storage	Active Drum Storage Unit (1988)	No evidence of a release
26	Building 37	Former auto repair garage Handling, use storage of fuels, lubricating oils and solvents Disposal methods of waste fluids and historic dry drain		
27	Building 43, 44 and 54	No documents identified removal of former hydraulic lifts		
		Building 54 - Shipping and receiving area Handling of chemicals and wastes		
		Eastern Side of Building 43 - Bag house Focused investigation not warranted	Bag house	Unknown release to air. No release from the bag houses to soil, groundwater or surface water, and no further action was warranted
		Former interior chemical storage and usage in both buildings		
28	Building 63	Wastewater Treatment Plant	WWTP	No evidence of a release to soil or groundwater
29	Former Plating Sanitary Sewer Line	Break in former sanitary sewer plating line identified in eastern parking lot		

TABLE 1

GENERAL ELECTRIC COMPANY
SCHOOL PARCEL
BRIDGEPORT, CONNECTICUT

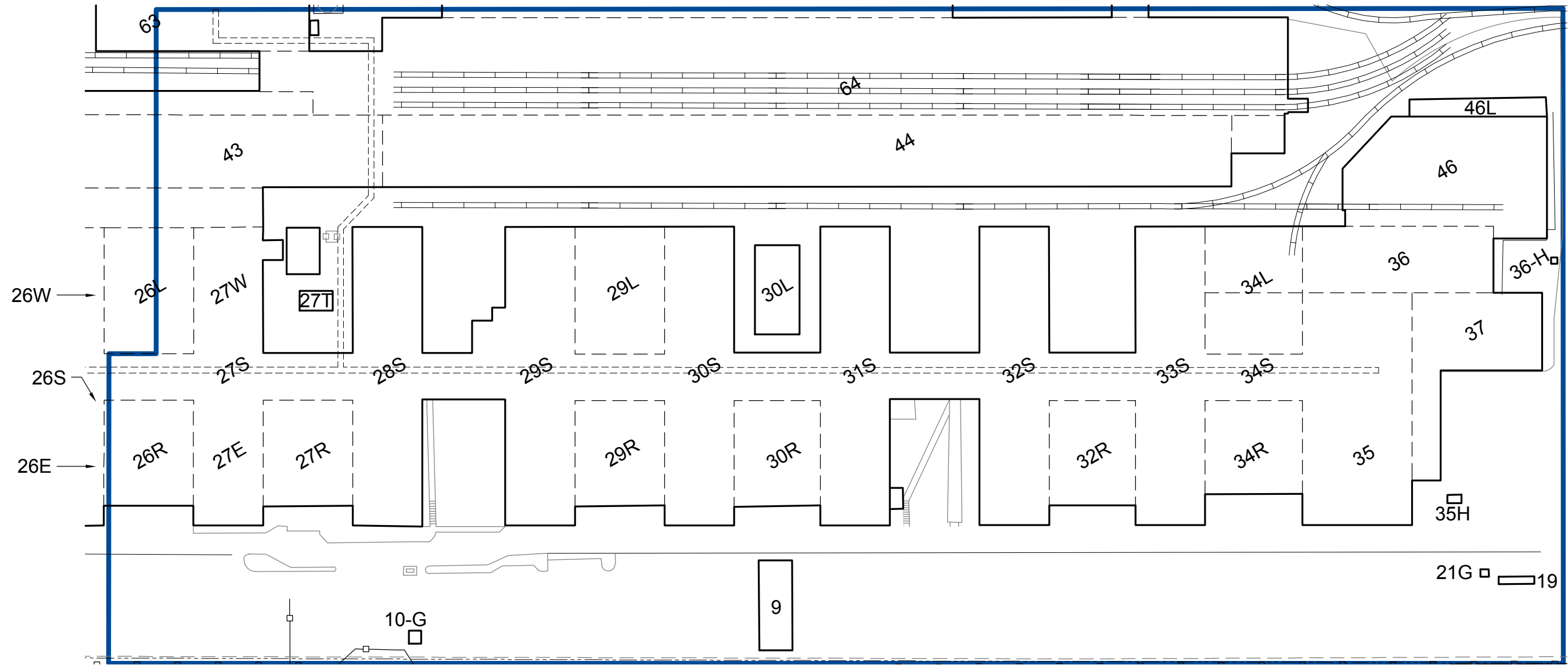
Summary of Areas of Concern

AOC #	Area of Concern (AOC)	Primary Concern	1988 RFA	Summary of 1988 RFA Conclusion
Wide Spread/Site Wide Areas of Concern				
30	Utility Tunnel	Acts as potential conduit for interior spills near service and pipe chase areas. Leakage from tunnel to soil and groundwater	Storm Drains and Contact Cooling Water Conduits	Potential release to surface water, unknown release to soil, groundwater, air and subsurface gas
31	Facility Sanitary Sewers	Impacts associated with historic break and overflow of sewer containing waste from Building 31AE.	Sanitary Sewers	Unknown release to soil, groundwater, surface water, air and subsurface gas
32	Floor and Storm Drainage System	Acts as conduit for interior spills; Potential discharge to Pond and Brooks; Leakage from underground piping	Storm Drains and Contact Cooling Water Conduits	Potential release to surface water, unknown release to soil, groundwater, air and subsurface gas
33	Railroad Tracks	Potential spills or leakage from locomotives, potential spills associated with the fueling of the locomotives, maintenance of the tracks and the handling of materials in shipping and receiving areas.		
34	Fill	Quality of fill used during development of Site		

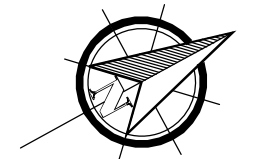
RFA: RCRA Facility Assessment

FIGURES

O:\DWG\General Electric\Bridgport\2013\09-September\Max Build out PH3 Bound.dwg, Layout, 4/25/2014, 2:47:39 PM, AcroPlotIDWF.pc3



- LEGEND**
- FENCE
 - RAILROAD TRACK
 - 36** BUILDING NUMBER
 - PROPERTY BOUNDARY



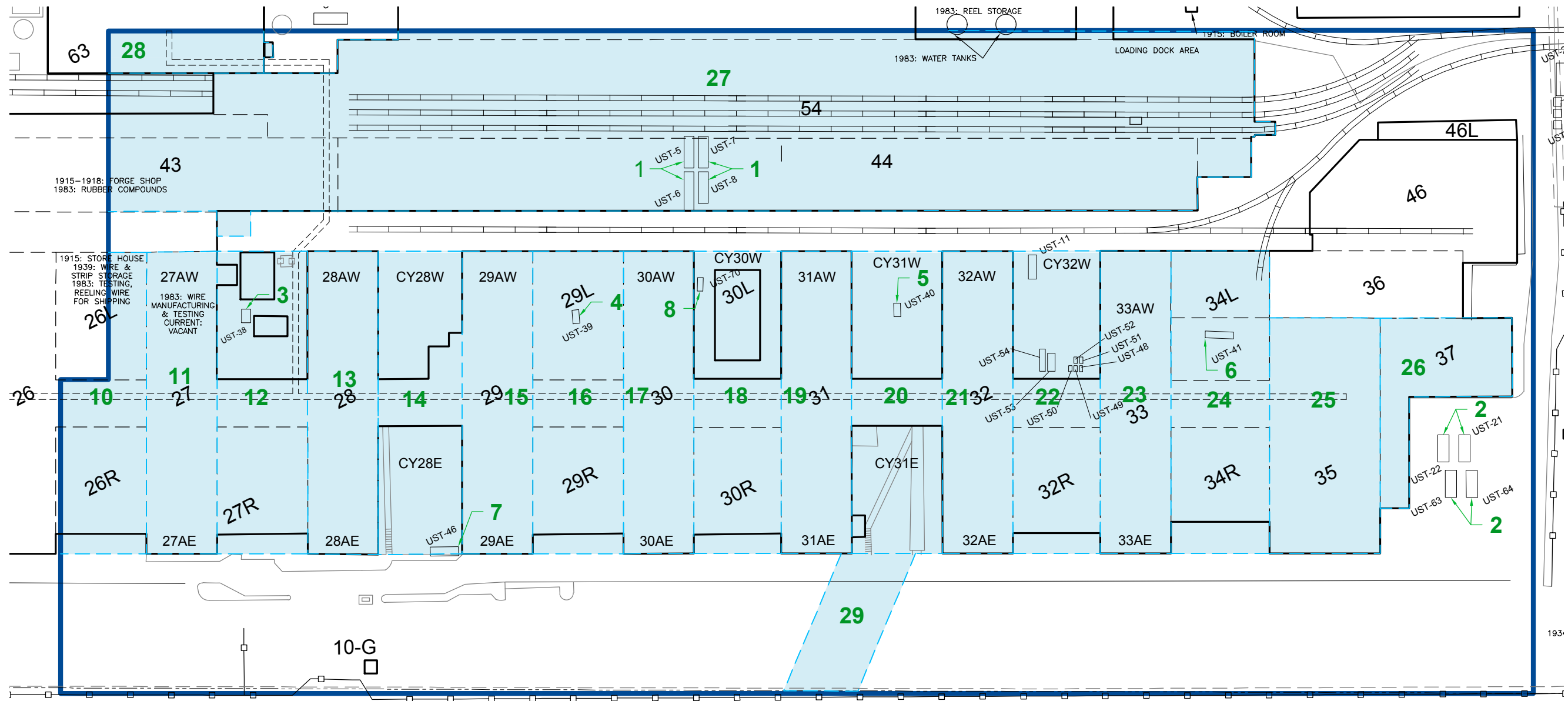
**SCHOOL PARCEL
379 BOND STREET
BRIDGEPORT, CONNECTICUT**

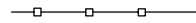




MAXIMUM BUILD OUT FOR SITE

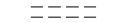
DATE	REVISED	PREPARED BY:
		LEGGETTE, BRASHEARS & GRAHAM, INC.
		Professional Groundwater and Environmental Engineering Services
		4 Research Drive
		Suite 301
		Shelton, Connecticut 06484
		(203) 929-8555
DRAWN:	MRV	CHECKED: MM
		DATE: 04/24/14
		FIGURE: 1


NOTES: BASE MAP PROVIDED BY GE CORPORATE.

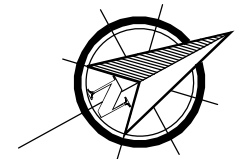
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- LEGEND**
-  FENCE
 -  RAILROAD TRACK
 -  FORMER LOCATION OF UNDERGROUND STORAGE TANK
 -  BUILDING OR COURTYARD NUMBER
 -  PROPERTY BOUNDARY

 UTILITY TUNNEL

 AREA OF CONCERN



SCHOOL PARCEL
379 BOND STREET
BRIDGEPORT, CONNECTICUT

INDIVIDUAL AREAS OF CONCERN

DATE	REVISED	PREPARED BY:
		LEGGETTE, BRASHEARS & GRAHAM, INC.
		Professional Groundwater and Environmental Engineering Services
		4 Research Drive
		Suite 301
		Shelton, Connecticut 06484
		(203) 929-8555
DRAWN:	RAC	CHECKED: MM
		DATE: 04/07/14
		FIGURE: 2

NOTE:
 BASE MAP PROVIDED BY GE CORPORATE. THIS MAP DOES NOT INCLUDE
 OPERATIONS WHICH DID NOT OCCUR ON THE BASE FLOOR.